

**REMARKS**

This responds to the Office Action mailed on August 31, 2007.

Claims 1, 3, 6 and 11-12 were amended, claims 14-28 are withdrawn as to a non-elected species, claim 5 was canceled and claims 35-41 were added; as a result, claims 1-4, 6-13 and 35-41 are now pending in this application.

**Amendments to the Specification and Claims**

The Priority Claim has been moved to the proper place.

The term “elastising agent” has been amended to “elasticizing agent.”

The spelling of “acrylonitrile” has been corrected.

The term “protonic monomer” is exemplified by the specification. As the Examiner mentioned in paragraph [0073], a “protonic monomer” has now been clarified by the amendment to the specification to indicate a “vinyl monomer” is an example of such a protonic monomer. Other places in the specification describe an example of a protonic monomer as vinyl phosphonic acid. Also, to clarify, as in paragraph [0022], all monomers utilized are also polar.

Where appropriate, the term “phosphoric acid” has been replaced with “phosphonic acid.”

The punctuation and organization of paragraph 73 has been amended to clarify the mixture of materials.

**Objections**

The claims have been amended to use the term “cross linking” rather than “cross-linking.”

**112 Rejections**

Claims 1-4, 6-13 were rejected under 35 U.S.C. § 112, first paragraph because the specification is not enabling. Applicant respectfully traverses these grounds for rejection. As described in MPEP § 2164 et seq., the following represents the *prima facie* case that the Examiner must provide in order to maintain a rejection of non-enablement with respect to the disclosure of a patent application under 35 U.S.C. § 112, first paragraph:

1. a rational basis as to
  - a. why the disclosure does not teach, or
  - b. why to doubt the objective truth of the statements in the disclosure that purport to teach;
2. the manner and process of making and using the invention;
3. that correspond in scope to the claimed invention;
4. to one of ordinary skill in the pertinent technology;
5. without undue experimentation; and
6. dealing with subject matter that would not already be known to the skilled person as of the filing date of the application.

Since the Examiner has not provided evidence supporting each of these elements, the Examiner has not made out a *prima facie* case for non-enablement under 35 U.S.C. § 112, first paragraph. The Examiner has simply stated that the disclosure does not support the breadth of the claims. The claims describe genus and species components, including percentage ranges in compositions and detailed method steps on making an electrochemical cell. The Applicant has provided enough detail and description to enable one of ordinary skill in the art to make and use the invention.

Further, applicant respectfully submits that the specification does provide enablement commensurate with the scope of claims 1-4, 6-13 for the following reasons. Applicant's specification at page 5, line 20 describes narrower, exemplary percentage ranges for the composition components. At page 6, lines 9-23, the specification describes many examples of monomers and cross-linking agents usable for the invention. These portions of the specification, among others, enable a person of ordinary skill in the art to make and use the invention commensurate with the scope of the claims.

Claims 1-4, 6-13 have been rejected under 35 U.S.C. 112, second paragraph.

The Office Action alleges that the claimed weight percentages are indefinite. Applicant respectfully disagrees regarding the indefiniteness of the claimed weight percentage ranges.

The Examiner seems to take the position that claiming a percentage range of a component in a composition is improper. It is perfectly acceptable and understandable to one skilled in the art to claim a number of components in a composition and identify the percentage range for which each is present in the composition. There are many combinations of the components that could be chosen to add up to 100% of the composition and one skilled in the art would have no

problem understanding this. If additional components listed in dependent claims are considered, the total composition would still add up to 100% using the weight percentage ranges given. Therefore, it is not indefinite to claim weight percentage ranges and it is respectfully requested that this rejection be withdrawn.

**Double Patenting Rejection**

Claims 1-13 were provisionally rejected under a non-statutory obviousness-type double patenting as being unpatentable over claims 1-13 of copending Application No. 10/780,968. Applicant does not admit that the claims are obvious in view of Application No. 10/780,968. However, a Terminal Disclaimer in compliance with 37 C.F.R. 1.321(b)(iv) is enclosed herewith to obviate these rejections.

**§102/103 Rejection of the Claims**

Claims 1 and 3-13 were rejected under 35 U.S.C. § 102(e) for anticipation by U.S. Patent Application Publication No. 2005/0147859 (Kiefer).

Newly amended Claim 1 clarifies that the electrolyte composition is disposed within one or more channels of the electrochemical cell. The Kiefer reference is an example of a traditionally produced electrolyte formed into a “sheet.” The electrolyte compositions of Kiefer are not disposed within one or more channels of an electrochemical cell, nor are they contemplated to be cured *in situ*. The Kiefer reference does not anticipate the claims of the present invention, as not all elements have been disclosed.

Claims 1, 3 and 6-8 were rejected under 35 U.S.C. § 102(b) for anticipation by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 53-029291 (JP ‘291).

The abstract (as per the Examiner, no translation was relied upon) of the reference simply mentions “a perfluorocarbon polymer membrane having a sulfonic acid group with sultone ring-forming diolefins monomers and polymerizing the monomers.” The reference does not disclose the weight percentages of the components or the way the curable composition is disposed within one or more channels of the electrochemical cell.

**§103 Rejection of the Claims**

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kiefer or JP '291 as applied to claim 1 above, and further in view of U.S. Patent No. 5,425,687 (Singleton).

Neither the Kiefer reference, nor the Singleton reference disclose electrolyte compositions disposed within one or more channels of an electrochemical cell, nor are they contemplated to be cured *in situ* (as stated in Claim 1, from which Claim 2 depends). The Examiner has not made out a *prima facie* case of obviousness as not all elements of the claims are found in the references.

Claims 4-5 and 9-12 were also rejected as obvious, but as they directly or indirectly depend from Claim 1. It is believed they are also in allowable condition.

**Reservation of Rights**

In the interest of clarity and brevity, Applicant may not have equally addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, or the right to challenge or rebut any asserted factual or legal basis of any of the rejections. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled or withdrawn claims in a subsequent patent application claiming the benefit of priority of the present patent application.

**AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111**

Serial Number: 10/781,363

Filing Date: February 18, 2004

Title: ELECTROCHEMICAL CELL AND FUEL CELL WITH CURABLE LIQUID ELECTROLYTE

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**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 612-373-6920 to facilitate prosecution of this application.

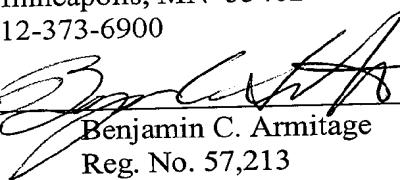
If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date: December 18, 2007

By



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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

this 18<sup>th</sup> day of December 2007.

PATRICIA A. HULTMAN

Name

Signature

